5

10

15

20

ABSTRACT

O9/140,589

The invention provides a diffusing plate with the angle of diffusion controllable within a desired range by use of a hologram, which is capable of presenting bright displays so that it is applicable to, for instance, a backlighting diffusing plate for liquid cyystal display device. A diffusing plate 2 having an/angle of diffusion  $\theta$  is brought into close contact with a Mologram photosensitive material 1. Then, parallel light 3 is/obliquely at an angle of incidence α on the photosensitive material 1 while parallel light 4 is vertically incident on/the diffusing plate 2. Thereupon, parallel light 4 is  $c\phi$ nverted into diffused light 5 having an angle of diffraction/ $\theta$  upon passing through the diffusing Diffused Light 5 interferes with obliquely incident plate 2. parallel light 3 f/rom the opposite direction in photosensitive material 1 to produce interference fringes, thereby forming a refle¢tion type hologram. Upon parallel illumination Laght on the hologram at the same angle of incidence  $\alpha$  at which parallel light 3 strikes for recording, diffused light having the same angle of diffraction  $\theta$  as that of diffused light 5 used for recording is reflected, and diffracted from this reflection type hologram.